

SAN FRANCISCO NAVAL SHIPYARD

San Francisco 24, California

SHIPYARD ORDER No. 29-49

12 April 1949

(143)

Subj: Establishment of Responsibilities and Duties for Dealing with Radiological Hazards.

Refs: (a) NBL SHIPS 2, SFNS Annex, Appendix LIX "Plan for Radiological Defense"

1. PURPOSE. This Order provides a working organization for dealing with radiological hazards in this Shipyard and for rendering assistance to other Government installations (Mare Island Naval Shipyard; Fort Mason; Naval Air Station, Alameda; etc.), or civilian areas (i.e., San Francisco, Oakland, Vallejo and San Mateo Civilian Defense Areas), as may be directed by appropriate authorities. This Order covers all radiological hazards which may be experienced in this Shipyard regardless of the origin from which the radiological hazard may be evolved. For the purpose of considering such radiological hazards, this Order divides such hazards into the following categories:

(a) Radiological hazards stemming from enemy action directly affecting the Shipyard or the community at large, hereinafter designated as "Passive Radiological Defense".

(b) Radiological hazards evolving from assigned experimental work, decontamination and repairs to radioactively contaminated ships, or from operations incident to receiving, storage or shipment of radioactive materials, hereinafter designated as "Industrial Radiological Hazards".

It is the purpose of this Order to establish broad responsibilities for the handling of the foregoing hazards. Detailed plans for the handling of Passive Radiological Defense will be promulgated in reference (a). Matters concerning the detailed procedures and other matters in connection with Industrial Radiological Hazards will be promulgated by the Department, Division or Office concerned in the appropriate Chapter of the Shipyard Manual.

2. APPRECIATION OF THE PROBLEM. It should be borne in mind that many of the hazards stemming from possible effects of nuclear fission are of recent origin and in many cases much different from those of other types of hazards known to the military and civilian populace in the past. Thus, it is important that indoctrinating measures be taken so that there is instilled in the minds of all a healthy respect for radiological hazards. In order to foster a voluntary and intelligent adherence to appropriate safety measures where work is in progress involving radiological hazards of an industrial nature, and also to avoid fear and panic should an emergency arise as a consequence of enemy action, all concerned must be assured that little risk is involved provided the necessary precautions are observed, but that great risk may be incurred if they are not observed.

3. ORGANIZATION AND ASSIGNED RESPONSIBILITIES.

(a) Radiological Officer. For the purpose of coordination of all matters concerning radiological hazards within the Shipyard, a line officer (including ED) preferably not below the rank of Commander, shall be designated "the Radiological Officer". The Radiological Officer is assigned the following responsibilities:

(1) Act as the principal assistant to and advisor of the Shipyard Commander in all matters affecting Radiological Defense or Safety in the event of a disaster within the Shipyard incident to atomic warfare and in all matters concerning radiological safety within the Shipyard.

(2) Act as liaison with other military and civilian organizations in connection with radiological defense and/or safety matters.

(3) Keep himself informed of all publications, directives, procedures and advancements of knowledge in this field based upon available information being developed concerning safety techniques and industrial preparedness, maintain files of same and bring to the attention of other personnel who must be informed.

(4) Coordinate the preparation and dissemination of plans, procedures, methods, technical information and safety regulations of all Departments, Divisions and Offices of the Shipyard concerning matters of Industrial Radiological Hazards for the approval of the Shipyard Commander.

(5) Serve as the principal technical advisor and coordinate the preparation of adequate Passive Radiological Defense plans reference (a)., for the Shipyard and for rendering aid to other nearby Government installations or civilian populace in accordance with mutual aid plans.

(6) Furnish technical assistance to the Industrial Relations Officer in the development of the necessary training programs and establishment of industrial radiological safety precautions.

(7) Act as technical advisor to other Department and Office Heads in obtaining materials (i.e., gas masks, radiac instruments, protective clothing, solutions for decontamination, etc.) necessary in connection with the handling of Passive Radiological Defense and/or Industrial Radiological Hazards.

(8) On the basis of personal inspection, advise Heads of other Departments and Offices as to the adequacy of Passive Radiological Defense organization, equipment and materials to meet the needs of the Shipyard as provided within the appropriations and in accordance with directives from higher authority.

(9) Conduct on-the-spot observations as necessary to determine that radiological safety procedures are properly interpreted from a technical point of view and that personnel are properly safeguarded while working in the presence of radioactive materials and advise cognizant Heads of Departments or Offices as appropriate.

(10) Collaborate with the Administrative Officer to insure that the Shipyard Disaster Control Plan is coordinated with the Passive Radiological Defense Plan.

(b) **Advisory Board.** The Radiological Officer may be assisted by a board of civilian and/or military personnel of the Shipyard who have been especially trained or who have prior experience in radiological matters. He may designate certain individuals of such board to act as his representative in carrying out prescribed duties. However, the Radiological Officer will be responsible for the action of such representatives.

(c) **Radiological Health Officer.** An officer of the Medical Department will be designated by the Senior Medical Officer as the Radiological Health Officer. As such, he is the principal advisor to the Radiological Officer for matters involving the protection of the health of personnel from radiological hazards. He shall collaborate with the Radiological Officer in all matters concerning the responsibilities of the latter. The Radiological Health Officer is responsible for the following:

(1) Develop and recommend means and measures for safeguarding the health of Shipyard personnel engaged in operations involving exposure to radiological hazards.

(2) Prepare radiological health regulations for radiological defense and safety including personnel decontamination procedures, emergency exposure tables, tolerance levels, etc., and submit them to the Commander for approval via the Radiological Officer.

(3) Through close contact with operations involving radiological material, evaluate all radiological health hazards and thereafter inspect all radiological safety arrangements to determine that prescribed exposure levels and safety precautions are being complied with.

(4) Conduct medical examinations of all personnel prior to their assignment to other than emergency operations involving radioactive material, observe the health status while so employed and require re-examination as deemed essential.

(5) Provide required medical supervision in effecting decontamination of personnel who have been in contact with radioactive material and of their clothing and equipment.

(6) Provide immediate care for personnel who may incur radiological injuries and make arrangements for further medical care and treatment as required, including arrangements for handling emergencies in conjunction with other Naval and civilian medical activities in the vicinity.

(7) Make inspections, maintain suitable records and forward to the Bureau of Medicine and Surgery the required personnel reports concerning radiological safety as directed by that Bureau.

(8) Maintain liaison with the Radiological Defense Laboratory, the Bureau of Medicine and Surgery and other sources of technical advice on radiological hazards.

(9) Provide personnel dosimeters as necessary for personnel protection. Establish suitable facilities and provide trained personnel for the processing and interpretation for exposures recorded by the dosimeters.

(10) Collaborate with the Industrial Relations Officer in conducting training courses for Medical personnel.

(11) The Radiological Health Officer will keep the Radiological Officer informed of all matters of importance in connection with his duties, including copies of reports to higher authority and measures requiring coordination with other Departments or Offices. In the event he considers it necessary he may take action directly but shall in all cases keep the Radiological Officer informed of his action.

(12) Maintain liaison with the Dental Officer to obtain from that Officer such services as are required.

(d) **Administrative Officer.** The Administrative Officer has responsibility for:

(1) All matters connected with the berthing or moving of contaminated vessels, security of unmanned contaminated vessels, and policing dock areas used by contaminated vessels.

(2) Requiring contaminated vessels, or those having contaminated material on board, to post warning signs, maintain sentries, etc., as necessary.

(3) The arrangements for disposal at sea of any radioactively contaminated waste or scrap material. Departments or Offices having any such material shall make arrangements for its disposal with the Administrative Officer.

(e) **Industrial Relations Officer.** The Industrial Relations Officer shall be responsible for training, safety, and employee relations as follows:

(1) Preparation and conduct of training programs, receiving technical advice and assistance as required from the Radiological Officer and Radiological Health Officer.

(2) Yard-wide dissemination of information on radiological safety matters pertaining to industrial problems; recommendations to appropriate authorities on accident prevention and industrial hazards; investigation of accidents followed by recommendations to prevent recurrence; statistical accounting of all accidents; and processing claims arising thereunder in accordance with U. S. Employees Compensation Act of 1916, as amended.

(3) Development and conduct of necessary programs to maintain morale in the face of radiological hazards.

(f) **Public Works Officer.** The Public Works Officer is assigned the following responsibilities:

(1) Consider all radiological aspects in connection with design, construction (including modifications to existing facilities), maintenance and repair and decontamination of the Public Works plant (all buildings, interiors and exteriors, grounds, bombproof and protection areas, vehicles, cranes, utilities and other Public Works equipment).

(2) In collaboration with the Radiological Officer and in accordance with current Shipyard policy, procure, store and maintain materials and equipment and make such arrangements and plans necessary to carry out these assigned duties.

(3) Make necessary arrangements for handling of mass evacuation of Shipyard personnel in event such evacuation may become necessary in connection with a disaster involving atomic warfare.

(g) **Production Officer.** Production Officer is assigned the following responsibilities:

(1) In collaboration with the Radiological Officer and in accordance with current Shipyard policy, procure, store and maintain materials and equipment; develop procedures and train personnel in methods and techniques concerning decontamination of vessels and the handling of any radioactively contaminated ships' material or equipment.

(2) Providing warning signs, roping off areas and requesting special guards as required from the Administrative Officer, etc., and for insuring radiological safety in connection with all contaminated material under the cognizance of the Production Department which is isolated from a general contaminated area.

(h) **Planning Officer.** The Planning Officer shall be responsible for:

(1) Insuring that all necessary instructions concerning decontamination and reference to radiological safety instructions are included in job orders involving industrial work on radioactively contaminated material.

(2) Conduct advance planning as necessary in connection with handling radiological hazards involved in industrial work, including advance notification to the Production Officer of the arrival of any vessel or material suspected of radiological contamination.

(i) **Supply Officer.** The Supply Officer shall be responsible for:

(1) The procurement of materials, equipment and facilities necessary to carry out radiological safety and decontamination work in accordance with approved plans as coordinated by the Radiological Officer.

(2) He shall insure that all shipments of radioactively contaminated or radioactive material comply with the rules of the Interstate Commerce Commission.

(j) **Electronics Officer.** The Electronics Officer is responsible for:

(1) Requesting and issuing radiac instruments as required.

(2) Necessary maintenance, repair and decontamination of radiac instruments, including checking and calibration.

(k) **General Responsibilities of the Heads of all Departments and Offices.** It is the responsibility of all Department and Office Heads to:

(1) Insure full compliance with all approved safety precautions concerning the handling of radioactive or radioactively contaminated material.

(2) Insure that all supervisors having responsibility for personnel who may become exposed to radiological hazards have satisfactorily completed radiological safety programs as provided by the Industrial Relations Division of this Shipyard.

(3) Insure the availability of safety clothing and safety equipment and make arrangements for laundering, decontamination, etc.

(4) Insure that all persons assigned to industrial work involving radiological hazards have been found physically qualified by the Radiological Health Officer.

(5) Prescribe detail actions to be taken within their assigned cognizance in the event of a disaster incident to atomic warfare and also in the preparation of instructions and information concerning industrial work involving radiological hazards. These instructions shall be in general accordance with the approved Shipyard plans as coordinated by the Radiological Officer.

(1) **All Personnel.** All personnel connected with the Shipyard shall:

(1) Familiarize themselves with and strictly observe all safety precautions with respect to radiological hazards.

B. E. MANSEAU
Captain, USN
Commander

DIST: OO, S, C, ON, OR

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